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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/684,491	10/15/2003	Alec G. Dodd	84702/3032 Gnn	8877

20736 7590 04/20/2005

MANELLI DENISON & SELTER  
2000 M STREET NW SUITE 700  
WASHINGTON, DC 20036-3307

EXAMINER
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LE, TAN

ART UNIT	PAPER NUMBER
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3632

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/684,491

Applicant(s)

DODD ET AL

Examiner

Tan Le

Art Unit

3632

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) 4 and 7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 6 and 8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/15/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. This is the first office action for serial number 10/684,491. This application contains 8 claims numbered 1-8.
2. Applicant's election without traverse of the species of Figures 1-3, claims 1-3 and 5-8 in the reply filed on January 24, 2005 is acknowledged.

Currently claims 1-3, 5-6 and 8 are readable to the elected species. Claim 7 is readable to species of Figures 1 and 4, not the species of Figures 1-3. An examination as follows.

3. Claims 4 and 7 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim.

### ***Priority***

4. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

5. The information disclosure statement (IDS) submitted on 10/15/03. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3, 5-6 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the inner ends" in line 11. There is insufficient antecedent basis for this limitation in the claim.

Claim 2 recites the limitation "the region" in lines 7-8. There is insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation "the annular channel" in line 3; "the walls" line 4; "the insertion", line 5, "the inner end" line 6. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 5,421,703 to Payling.

As to claim 1, Payling teaches an assembly for housing an inboard end of a stator vane comprising an internal abradable lining (54) and at least two radially, separately formed, outwardly extending members defining first and second flanges (88, 90, 96, 98, 56) , at least one of said members (56, 98) being adapted to support said internal abradable lining, the flanges being adapted and shaped to cooperate with one another so as to form channel therebetween and said channel being shaped so as to receive one or more connecting members extending radially inwardly from inner ends (22) of a plurality of stator vanes.

As to claim 2, Payling also teaches the first member flange comprising an axially extending portion supporting said abradable lining and a radially outwardly extending portion fixed radially outwardly extending portion of said second member wherein at least said first member formed such that radially extending U-shaped channel being formed radially outwardly from a region of connection of said members.

As to claim 3, Payling also teaches the members each comprises a convoluted pressed sheet.

As to claim 6, the seal as claimed in claim 6 is not a positive part/limitation of the claimed. Therefore this limitation also met by Payling.

As to claim 8, Payling also teaches the abradable lining being a honeycomb structure.

Claims 1-3, 5-6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 5,073,084 to Hirst.

As to claim 1, Hirst teaches a labyrinth seal outer portion which carries an abradable lining (34) and at least two radially, separately formed, outwardly extending members defining first and second flanges (see marked-up copy), at least one of said members being adapted to support said internal abradable lining, the flanges being adapted and shaped to cooperate with one another so as to form channel therebetween (38) and said channel being shaped so as to receive one or more connecting members extending radially inwardly from inner ends (46) of a plurality of stator vanes.

As to claim 2, Hirst also teaches the first member flange comprising an axially extending portion supporting said abradable lining and a radially outwardly extending portion fixed radially outwardly extending portion of said second member wherein at least said first member formed such that radially extending U-shaped channel being formed radially outwardly from a region of connection of said members.

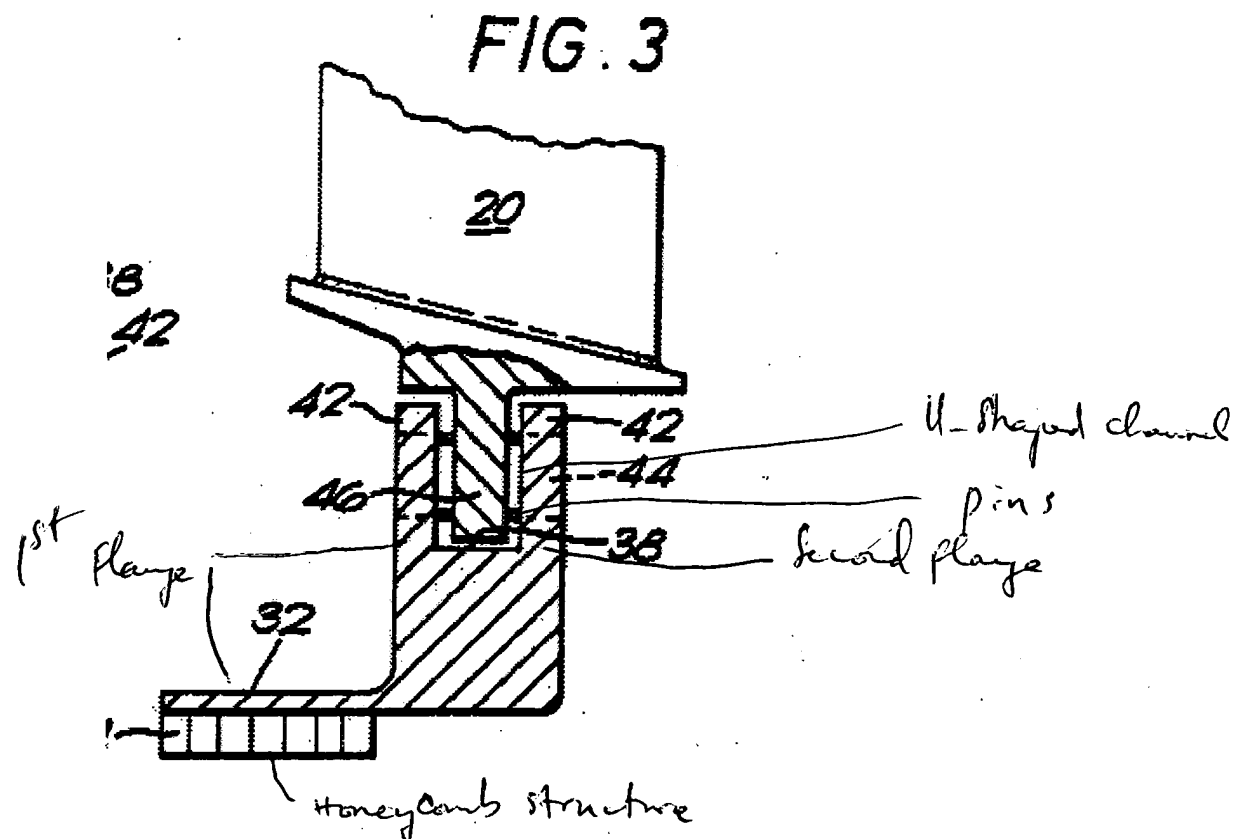
As to claim 3, Hirst also appears to teach the members each comprises a convoluted pressed sheet.

As to claim 5, Hirst also teaches a number of angularly spaced pairs of pins (44) and being fixed by their ends in the channel and the pins being spaced from one another by a distance which enable an insertion therebetween of an inwardly directed feature on the inner ends of a plurality of stator vanes associated therewith.

As to claim 6, the seal as claimed in claim 6 is not a positive part/limitation of the claimed. Therefore this limitation also met by Hirst

As to claim 8, Hirst also teaches the abradable lining being a honeycomb structure.

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### **Conclusion**

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

5,062,767 to Worley et al.

5,346,362 to Bonner et al.

5,639,211 to Bintz

4,792,277 to Dittberner, Jr. et al.

US 2004/0169122A1 to Dodd et al.

The above patents disclose various types of seal support apparatuses.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tan Le whose telephone number is (571)-272-6818.

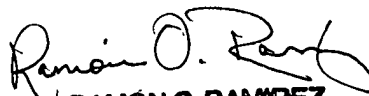
The examiner can normally be reached on Mon. through Fri. from 9:00 AM-6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leslie Braun can be reached on (571)-272-6815. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tan Le  
Patent examiner  
April 8, 2005.



**RAMON O. RAMIREZ**  
**PRIMARY EXAMINER**